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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/594,652	06/15/2000	Shekhar Iyer	020431.0985	9277

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EXAMINER

GRAYSAY, TAMARA L

ART UNIT	PAPER NUMBER
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3623

DATE MAILED: 08/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/594,652

Applicant(s)

IYER ET AL.

Examiner

Tamara L. Graysay

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-48 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-48 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Preliminary Matters

1. The claim rejection under 35 U.S.C. 101 has been overcome by the 02 May 2005 response. Consistent with applicant's statement(s) at page 18 of the amendment, claim 33 is drawn to a computer readable media in combination with instructions encoded thereon.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3, 5, 7-11, 13-16, 18, 19, 21-25, 27-30, 32-34, 36-40, 42-45, 47, and 48 are rejected under 35 U.S.C. 102(b) as being anticipated by Iyer (article, Automated retrieval and ranking of similar parts in agile manufacturing).

A. Regarding claim 1, Iyer discloses a computer implemented system comprising

- a. a first user interface (860:left:second paragraph, through an easy-to-use user interface) to receive a user (860:left:second paragraph, designer) request (860:left:second paragraph, input) specifying a desired attribute value for each product attribute (860:left:second paragraph, characteristics and similarity level);
- b. a search procedure (859:abstract; 860:left:second paragraph; 862:right:§3.1(1))

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- i for each attribute the desired attribute value is compared with the potential product to determine attribute similarity value (862:right:§3.1,second paragraph; 862:right:§3.1(1), identifies a set of potentially useful parts; and 864:§4);
 - ii determine product similarity value (862:right:§2.3; 862:right:§3.1(1); 864:§4);
 - iii alternative products selected according to product similarity (862:right:3.1(1));
- c. a sort procedure (859:abstract; 863:left:§3.1(2); and 867:§5) to rank the products;
 - d. a second user interface (863:fig1) to present the set (sorted list of parts).

B. Regarding claims 5 and 33, Iyer discloses the method steps performed by the system as well as the use of a computer readable medium encoded with software for performing the computer implemented process. Further regarding claim 5, the quantity of processing units does not affect the method as claimed, and as such has not been given patentable weight.

C. Regarding claims 3, 19, and 34, Iyer includes a database containing the information identifying available products (860:right:§2.1; 874:right:§7), availability (875:left:first paragraph, production history), and their attributes (861:left:§2.1.1). Further regarding claim 4, the operability of the user interface does not structurally define over Iyer because Iyer tracks production history as noted above, and inherently.

D. Regarding claims 7, 21, and 36, Iyer discloses desired attribute value as minimum, maximum, or exact (863:§3.1(1), most relevant parts; 866:right, §4.2.3, range feature characteristics).

E. Regarding claims 8, 22, and 37, Iyer discloses the user request further specifies a maximum or minimum attribute value (862:right:§3.1(1), retrieves parts that satisfy similarity requirements, redefine the search, etc.; 866:right, §4.2.3, range feature characteristics)

F. Regarding claims 9, 23, and 38, Iyer discloses the user request specifying the desired level of similarity (860:left:second and third paragraphs) for each product characteristic (860:left:second and third paragraphs, characteristics) encompassing one or more product attributes (e.g., 862:left:§2.5, a part class and specified attributes).

G. Regarding claims 10, 11, 24, 25, 39, and 40, Iyer discloses searching by the users desired level of similarity which inherently compares all products and retrieves information for only those products that have similar attributes, i.e., a constraint.

H. Regarding claims 13, 14, 27, 28, 42, and 43, Iyer mentions binary valued characteristics at 865:left:§4.1. A binary valued characteristic is a weight insofar as the

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attribute of the product matches (value of 1) or does not match (value of 0). Iyer further teaches valuation based on weighted sum (865:§4.2, continuous valued characteristics).

I. Regarding claims 15, 29, and 44, Iyer discloses a global index value (867:§5, global similarity measure).

J. Regarding claims 16, 30, and 45, Iyer teaches threshold similarity value during the search procedure (865:right:§4.2).

K. Regarding claim 18, 32, and 47, such a tie breaking technique is referred to in Iyer as primary feature and secondary feature characteristics (868:§5.1.2, 5.1.3) and combination scheme (871:§5.2, priority vector, combination matrix).

L. Regarding claim 48, Iyer teaches a computer implemented system comprising:

a. a first user interface (860:left:second paragraph, through an easy-to-use user interface) to receive a user (860:left:second paragraph, designer) request

(860:left:second paragraph, input);

i the user specifying a desired attribute value for each product attribute (860:left:second paragraph, characteristics and similarity level),

ii product attribute weight (Iyer mentions binary valued characteristics at 865:left:§4.1. A binary valued characteristic is a weight insofar as the attribute of the product matches (value of 1) or does not

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match (value of 0). Iyer further teaches valuation based on weighted sum (865:§4.2, continuous valued characteristics), and

iii threshold product similarity value (Iyer teaches threshold similarity value during the search procedure (865:right:§4.2));

b. a search procedure (859:abstract; 860:left:second paragraph; 862:right:§3.1(1))

i for each attribute the desired attribute value is compared with the potential product to determine attribute similarity value (862:right:§3.1,second paragraph; 862:right:§3.1(1), identifies a set of potentially useful parts; and 864:§4);

ii determine weighted product similarity value (862:right:§2.3; 862:right:§3.1(1); 864:§4);

iii determine product similarity index value (862:right:§2.3; 862:right:§3.1(1); 864:§4);

iv alternative products selected by comparing the product similarity index with the threshold value and include those meeting the criteria in a set based on product similarity (862:right:3.1(1); 865:right:§4.2, threshold);

c. a sort procedure (859:abstract; 863:left:§3.1(2); and 867:§5) to rank the products wherein the sort procedure inherently utilizes the weighted sum of the similarity index to rank the products because the similarity index is used to compare the products;

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- d. the user interface (863:fig1) to present the set (list of parts).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 2, 4, 12, 17, 20, 26, 31, 35, 41, and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iyer (article, Automated retrieval and ranking of similar parts in agile manufacturing).

A. Regarding claim 2, the examiner takes Official notice that the use of one or more user interfaces is common in the computer implemented system art. A single interface would permit information to be visible at a single location rather than separate locations. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the user interface of Iyer to include a single user interface, in order to present the sorted list to the user at the same location that the user requests the information.

B. Regarding claims 4, 20, and 35, the examiner takes Official notice that inventory tracking is well known in the product supply industry and that updating a database to reflect purchase or sale of a product is common in order to ensure that products are not offered that are not available. Therefore, it would have been obvious to one of ordinary skill in the art at

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the time the invention was made to modify the Iyer system interface, to include inventory tracking, in order to ensure that products that are unavailable are not offered for sale.

C. Regarding claims 12, 26, and 41, although the particular claimed algorithm is not mentioned, Iyer discloses the use of similarity measures and coefficients to quantify similarity between items (e.g., machines) at 861:right:§2.3. Iyer does mention the attribute similarity value (864:right:second paragraph, similarity index value).

D. Regarding claims 17, 31, and 46, Iyer does not particularly address a user limiting the number of candidate alternate products. However, the examiner takes Official notice that a user limiting the number of results in a search query is common and well known expedient in computer implemented query/response procedures used to focus the results to the most relevant. For example, the top fifteen hits, or more particularly top ten movies, top fifty colleges, top three safest cars, etc. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Iyer to include a user limited sort result, in order to focus the sort query results to the most relevant products.

Response to Arguments

4. Applicant's arguments with respect to claims 1-5 and 7-48 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


- Kong (article, Portals to boost shopping services) teaches product features ranked by users for comparison shopping.
- Kolawa (US-6370513) teaches user preference vectors in conjunction with product recommendation.
- Iyer (article, Identification and ranking of similar parts in agile manufacturing) teaches a two step search and sort procedure.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamara L. Graysay whose telephone number is (571) 272-6728. The examiner can normally be reached on Mon - Fri from 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz, can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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PRIMARY EXAMINER

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